

NATIONAL FLOOD SAFETY AWARENESS WEEK

Spring 2005

National Flood Safety Awareness Week is March 21-25, 2005

National Oceanic and Atmospheric Administration's (NOAA's) National Weather Service (NWS) will conduct its inaugural National Flood Safety Awareness campaign the week of March 21-25. The Utah Department of Public Safety, Utah Department of Transportation, the four Utah chapters of the American Red Cross, Utah State Parks and Recreation, and the Utah State Board of Education will assist in the campaign effort.

Flooding, while a simple word, conjures images to all. To some, it may be a record flood, such as the Santa Clara River flooding in St. George. To others, it may be a rush of water in a desert wash that almost swept their car and them away. Floods come in all shapes and sizes and can arrive without a moment's notice or with a slow creep. They can roll boulders the size of cars, destroy buildings and bridges, and take human lives. Regardless of how they come, floods over the long term kill more people in the United States than other type of severe weather.

The goals of the campaign are to educate the citizens of Utah of the hazards of flooding and flash flooding and what can be done to save lives and protect property.

Daily news releases and statements will be issued and broadcast on NOAA Weather Radio during the week. Hydrologists and Public Information Officers serving your area will be available for interviews and questions.

TURN AROUND DON'T DROWN

The date was July 14, and Melina, a student employee with the Bureau of Land Management and 4 fellow students were passengers in a car driven by an instructor on a geology field trip. A thunderstorm had just produced 1.3 inches of rain in an hour over the rocky, steep terrain of Grand Staircase-Escalante National Monument in southern Utah, sending a deluge of water down the Cottonwood Wash.

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Check out the National Flood Safety Awareness Week web site at
<http://www.floodsafety.noaa.gov>

A full color version of this publication is available on-line at
<http://www.wrh.noaa.gov/slc/wxsafety>



TURN AROUND DON'T DROWN...continued

In April, Brian McInerney, Service Hydrologist at the National Weather Service Salt Lake City Office, presented flash flooding training for Grand Staircase-Escalante National Monument personnel. Fortunately, for Melina and her party, that training was utilized. They received a radio communication from a Grand Staircase-Escalante National Monument employee that the National Weather Service had issued a Flash Flood Warning for the area and that they should turn back. Fortunately, they heeded the advice. A flash flood tore through Cottonwood Canyon, washing out a 4 foot diameter metal culvert and trenching out a 6 foot deep escarpment through the very road they were traveling that afternoon. Would you have turned around?

Each year, more deaths occur due to flooding than from any other thunderstorm related hazard. Why? The main reason is people underestimate the force and power of water. Many of the deaths occur in automobiles as they are swept downstream. Of these drownings, many are preventable, but too many people continue to drive around the barriers that warn the road is flooded.

Whether you are driving or walking, if you come to a flooded road, **Turn Around Don't Drown**. You will not know the depth of the water, nor will you know the condition of the road under the water.

To learn more about the dangers of floods and flash floods and how to protect yourself and your loved ones, visit the **Turn Around Don't Drown** web page at <http://www.nws.noaa.gov/os/water/tadd>.

Flash Flood Potential Rating

To bridge the gap between outlook products and flash flood watches/warnings, the National Weather Service (NWS) Salt Lake City office produces a product called the Flash Flood Potential Rating (FFPR). The FFPR is issued twice daily during the Summer and Fall seasons, roughly from mid June to late December, under the identifier of SLCESFSLC, WMO Header FGUS75. The FFPR provides a qualitative rating of the potential for flash flooding over the next two days for two areas...Southwest Utah and Southeast Utah. The rating categories are...

Low - Generally indicates that the risk of flash flooding is minimal or does not exist.

Moderate - Indicates that thunderstorms will be developing and isolated incidents of flash flooding are possible.

High - Used when scattered thunderstorms with areas of heavy rain are expected, with flash flood possibilities more widespread.

Very High - With this rating, meteorological conditions are right for significant probabilities of flash flooding over a widespread area. The "Very High" rating is rarely assigned.

The southwest Utah area includes Zion and Bryce Canyon National Parks, Cedar Breaks and Grand Staircase-Escalante National Monuments, plus surrounding areas. The southeast Utah area includes, Capital Reef, Canyonlands, and Arches National Parks, Natural Bridges National Monument, The Glen Canyon National Recreation Area, and surrounding areas. (Continued on Page 4)

Term and Definitions...What To Listen For

Flash flood - A rapid (generally within 6 hours) rise of water along a stream or low-lying area after a heavy rainfall or from the failure of a dam, levee, or ice jam. By definition, flash flooding is life-threatening.

Flood - A flood occurs when water overflows the confines of a river, stream, or body of water, or accumulates in poorly drained low-lying or urban areas.

Hazardous Weather Outlook/Special Weather Statement - A Hazardous Weather Outlook/Special Weather Statement will be issued to alert the public of the potential for flooding/flash flooding.

These products provide information on potentially hazardous weather out to 7 days.

Flash Flood Potential Rating - A qualitative rating (Low, Moderate, High, or Very High) of the potential for flash flooding.

Flash Flood Watch - Issued when conditions are favorable for flash flooding. A watch usually gives 12 to 36 hours advance notice of the onset. A watch indicates a need for planning, preparation, and an increased awareness of changing weather conditions.

Flood Watch - Issued when conditions are favorable for river flooding. A watch usually gives 12 to 36 hours advance notice of the onset.

Flash Flood Warning - Issued when:

- Flash flooding is reported or imminent
- A dam or levee failure is imminent or occurring
- A sudden failure of a naturally-caused stream obstruction (including debris slide, avalanche, or ice jam) is imminent or occurring
- Precipitation capable of causing flash flooding is indicated by radar, rain gages, and/or satellite.
- Local monitoring and prediction tools indicate flash flooding is likely

Flood Warning - Issued for flooding along rivers and streams. A warning indicates the need to take immediate action to protect life and property. The two categories of flood warnings are:

- Point Specific Flooding Warning— Issued for specific river forecast points
- Areal Flood Warning—Issued for a generalized area.

NOAA Weather Radio...Voice of the National Weather Service

Keep ahead of severe weather by listening to NOAA Weather Radio for the latest outlooks, watches and warnings. In addition to routine broadcasts, the Specific Area Message Encoding (SAME) feature of NOAA Weather Radio activates the Emergency Alert System (EAS). EAS is used to provide notification of emergencies to the public.

For more information, including links to NOAA Weather Radio transmitters in your area, visit the NOAA Weather Radio Web Site at <http://www.nws.noaa.gov/nwr>.

For special needs NOAA Weather Radio information, visit <http://www.nssl.noaa.gov/~wood/NWR/spc-nds-nwr>.

Did You Know?

Special needs NOAA Weather Radios designed to meet the needs of the deaf and hard-of-hearing are available.

Flood/Flash Flood Facts

- Average of more than 140 fatalities each year, nationwide
- 27 fatalities in Utah since 1950, with 1 already in 2005
- #1 cause of deaths associated with thunderstorms, nationwide
- Flooding causes more damage in the United States than any other weather related event, an average of \$4.6 billion a year
- Nearly half of all flash flood fatalities are vehicle-related
- Six inches of fast-moving water can knock you off your feet
- A water depth of two feet will cause most vehicles to float.

Did You Know?

The temperature of spring snow-melt runoff water is just over freezing. If in the water, hypothermia will set in and within 2 minutes the ability to pull yourself from the water will be lost.

Flood/Flash Flood Safety

- Monitor NOAA Weather Radio, or your favorite news source for vital weather information before venturing into flood prone areas
- If flooding occurs, move to higher ground, away from areas subject to flooding such as dips in roads, low spots, canyons, and washes
- Avoid areas already flooded and do not attempt to cross flowing streams
- Do not drive around barriers that warn you the road is flooded
- Never drive through flooded roadways, as the road bed under the flood waters may be washed out
- Never allow children to play around high water, storm drains, viaducts, or arroyos
- Do not camp or park your vehicle along streams and washes, if there is a threat of flooding
- Be especially cautious at night when it is harder to recognize flood dangers

Flood/Flash Flood Preparedness

Now is the time to prepare your home and family for flooding. What you do now could not only save your home, but also your life and your families lives. For assistance in preparedness, visit the American Red Cross Flood and Flash Flood page at http://www.redcross.org/services/disaster/0,1082,0_585_00.html.

Flash Flood Potential Rating...continued

The FFPR, along with outlooks, flood watches, and forecasts from the NWS should be used as a planning tool before venturing into slot canyons and washes. A “best practice” from Zion National Park is that the FFPR is stamped onto the back of each backcountry pass. Forecast information is also posted at the Visitors Center.

To view the FFPR product during the issuance season, go to <http://www.wrh.noaa.gov/slc/river> and click on the “Flash Flood Potential” link.

Advanced Hydrologic Prediction Service

The Advanced Hydrologic Prediction Service (AHPS) is NOAA's NWS ongoing effort to modernize hydrologic services. AHPS, coined "Water Predictions for Life's Decisions", provides improved river and flood forecasts, as well as water information across America, to protect life and property and ensure the Nation's economic well-being. AHPS graphical products are available at the NWS homepage at http://www.nws.noaa.gov/rivers_tab.php.

Everyone who makes decisions based on water, benefits from AHPS, including farmers, river boat pilots, emergency managers, municipal water supply officials, recreationists, and dam operators. AHPS will help emergency managers be more proactive in "fighting" a flood. AHPS provides information for community leaders and business owners to make better life-saving decisions about evacuating people or moving property before a flood. The navigation community will be able to plan with better confidence and optimize barge and shipping operations, saving millions of dollars each year. Recreational users will be able to stay out of harm's way.

AHPS, with its suite of enhanced information, provides the public with more detailed and accurate answers to the following questions.

- How high will the rivers rise?
- When will the river reach its peak?
- Where will the flooding occur?
- How long will the flood last?

Additional information on the AHPS system is available at http://www.nws.noaa.gov/rivers_tab.php.

Is your community StormReady?

On November 10th, 2002, an F4 tornado ripped a 53 mile long path of destruction in Ohio from southwestern Van Wert County into Henry County. In Van Wert County, the tornado claimed 2 lives and injured 17. Only the tornado warnings issued by the weather service and the prompt action by those receiving the warnings, prevented a greater loss of life. The benefits of being StormReady were illustrated at the Van Wert Cinemas, where a tornado warning was broadcast live over a local warning alert system. Theater management responded by moving over 50 adults and children to a more secure portion of the theater, just minutes before the tornado struck.

The StormReady Program is not just for severe weather, but rather for a broad range of extreme weather events, ranging from severe winter storms to floods and flash floods. Becoming StormReady helps community leaders and emergency managers strengthen their hazardous weather operations. StormReady communities are better prepared to save lives from the onslaught of extreme weather events through planning, education, and awareness. **Is your community StormReady?** For more information, visit the StormReady Web site at <http://www.nws.noaa.gov/stormready>.

Wanted: Weather Spotters

Spotter reports improve warning efficiency and accuracy, in addition to heightening public awareness when "ground truth" reports are included in warnings. We need your help! To locate or request a SKYWARN (spotter) training session near you, contact your local NOAA's NWS Office.



Internet Sites

National Oceanic and Atmospheric Administration (NOAA)

<http://www.noaa.gov>



National Weather Service

<http://www.nws.noaa.gov>

National Flood Safety Awareness Week Web Site

<http://www.floodsafety.noaa.gov>

Turn Around Don't Drown Web Page

<http://www.nws.noaa.gov/os/water/tadd>

National Weather Service Salt Lake City, UT

<http://www.wrh.noaa.gov/slc>

National Weather Service Grand Junction, CO

<http://www.crh.noaa.gov/git>

NWS Office of Climate, Water and Weather Services

<http://www.nws.noaa.gov/om/flood>

Federal Emergency Management Agency

<http://www.fema.gov/fima>



American Red Cross

<http://www.redcross.org/services>

Utah State Parks and Recreation

<http://www.stateparks.utah.gov>

NOAA Weather Radio

<http://www.nws.noaa.gov/nwr>

Climate Prediction Center

<http://www.cpc.noaa.gov>

Utah Department of Transportation

<http://www.udot.utah.gov>

CommuterLink

<http://www.commuterlink.utah.gov>

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